

## 26409 - Geomorphology

### Información del Plan Docente

Academic Year	2018/19
Subject	26409 - Geomorphology
Faculty / School	100 - Facultad de Ciencias
Degree	296 - Degree in Geology
ECTS	8.5
Year	2
Semester	Annual
Subject Type	Compulsory
Module	---

### 1.General information

#### 1.1.Aims of the course

#### 1.2.Context and importance of this course in the degree

#### 1.3.Recommendations to take this course

### 2.Learning goals

#### 2.1.Competences

#### 2.2.Learning goals

#### 2.3.Importance of learning goals

### 3.Assessment (1st and 2nd call)

#### 3.1.Assessment tasks (description of tasks, marking system and assessment criteria)

##### Assessment details

The student must demonstrate that has achieved the intended background through the following evaluation activities:

### Evaluation Activities

Written test on the basic knowledge of Geomorphology acquired in lectures, seminars and practical sessions. The written tests will consist of a review of questions of long and short answer, multiple choice and True and False case resolution. In these tests there will be evaluated the theoretical contents acquired so much in the theoretical classes as in the seminars, as well as of diverse aspects seen in practices of office and field.

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Elaboration, presentation and defense in seminars of a bibliographical work on some of the topics proposed by the teacher. Students will prepare individually or in pairs a bibliographical work with a summary in English on someone of the topics proposed by the teacher. The production of the work will be on a written memory of a maximum of 25 pages. The exhibition will be made public through a power point presentation lasting 15 minutes plus 5 minutes for discussion.

Preparation of maps and reports on practices of office and seminars. Students will complete exercises and geomorphological mapping developed by interpreting aerial photographs.

Attendance and participation of students in the field practices. During the fieldtrips the teacher, in view of the obligatory character of the same ones will check the assistance by means of a control of signatures. The assessment of student achievement at the fieldtrips will be held by several of questions in the written exams relative to the different seen aspects analyzed or visited in fieldtrips.

### Continuous evaluation: Evaluation and Qualification Criteria

The valuation or qualification of the different activities of evaluation will be realized following the following criteria:

- Test or exam on the basic knowledge of Geomorphology acquired in the magisterial participative classes, the seminars and the practical meetings. This note will suppose 60 % of the final note of the subject.
- Elaboration, presentation and defense in seminars of a bibliographical work on some of the topics proposed by the teacher. It is obligatory to attend at least 75 % of the presentations. The evaluation of these jobs will be held by a rubric. The note of the work will be 50% oral, 30 % ppt presentation, 20 % of heading assessment of the remaining partners. This note will represent 20 % of the final grade for the course
- Preparation of maps and reports on practices and seminars. This note will represent 20 % of the final grade for the course.

### Final exam

Final theoretical-practical examination for those who have not passed the subject through the continuous evaluation (100% of the final grade)

## 4. Methodology, learning tasks, syllabus and resources

### 4.1. Methodological overview

The methodology followed in this course is oriented towards the achievement of the learning objectives. A wide range of teaching and learning tasks are implemented, such as lectures, laboratory sessions, seminars and field trips.

### 4.2. Learning tasks

This course is organized as follows:

- **Lectures.** These participatory sessions will be focused on the presentation of different landforms and processes.
- **Laboratory sessions.** Resolution of problems and analysis of case studies. These practice sessions will start with brief methodological explanations aimed at introducing case studies, to be analyzed by the students using stereoscopes and aerial photographs under the supervision of the lecturer.

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- **Seminars.**
- **Fieldwork.** The field program will be developed in five journeys. Different geomorphological landforms and processes will be examined in the field.

### 4.3.Syllabus

This course will address the following topics:

- **Topic I. Introduction to the Geomorphology**
  - Concept of geomorphology and History of geomorphology
  - Basic concepts and theoretical principles
- **Topic II. Structural geomorphology**
  - Structural geomorphology and structural landforms
  - Geomorphology and plate tectonics
  - Igneous and volcanic geomorphology
  - Granitic Geomorphology
  - Karst geomorphology
- **Topic III. Geomorphic systems**
  - Weathering
  - Hillslope processes and forms: Introduction, Alluvial fans, Pediments
  - Fluvial geomorphology
  - Coastal geomorphology
- **Topic IV. Climatic geomorphology**
  - Glacial landforms and processes
  - Periglacial landforms and processes
  - Arid zones landforms and processes
  - Tropical landforms and processes
  - Geomorphology and Climatic change
- **Topic V. Applied geomorphology**

### 4.4.Course planning and calendar

This course covers the first and the second semesters.

Further information concerning the timetable, classroom, office hours, assessment dates and other details regarding this course will be provided on the first day of class or please refer to the Faculty of Sciences and Earth Sciences Department websites (<https://ciencias.unizar.es>; <https://cienciatierra.unizar.es>) and Moodle.

### 4.5.Bibliography and recommended resources